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Abstract

**EXPERIMENTAL PRESSURE VESSEL TYPE REACTOR
FOR STUDYING PROBLEMS OF BOILING AND VA-
POUR SUPERHEATING**

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In the USSR, construction work is being completed on an experimental reactor of the pressure vessel type to study problems of boiling and nuclear superheating of vapour inside the reactor.

The installation scheme of a universal type is considered in which it is possible to conduct investigations on boiling and vapour superheating problems, within a wide range of heat transfer medium parameters.

The reactor provides an electrical capacity of approximately 50 megawatts; it is possible to obtain saturated vapour with pressures ranging from 30 to 100 ata, and also vapour with a pressure of 90 ata and nuclear superheating of up to 500°C.

The layout of the vessel and the active zone of the reactor designated for operation with fuels of various enrichment and for various parameters of the heat-transfer medium are described. The research and engineering work program to be carried out on the experimental installation is discussed in detail.